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ABSTRACT

Included in this publication is a summary of principal findings and recommendations of the report entitled "Mexican American Youth and Vocational Education in Texas." The summary indicates that the Mexican American in Texas is more economically and educationally disadvantaged than his Anglo American counterpart. It is further concluded that, while the pattern of deprivation is similar in all parts of the state, the intensity of deprivation varies from region to region. Demographic data; the selection procedure; and attitudes toward life, school, cultural orientations, and vocational education (VE) are discussed for students, VE graduates, dropouts, employers, parents, and community and school personnel in the summary section. In the recommendations section is a discussion of "The Manpower Background." It is indicated that Mexican Americans are poorly represented in the statewide labor force and that, historically, there has been a gap between developing jobs and vocational patterns which would affect all VE students, especially the Mexican American VE students. General recommendations are made in the areas of career education, the organization and planning of vocational programs, post-secondary vocational/technical education, and communication. Some areas in which specific recommendations are made include the retardation of educational achievements, the Spanish language, bicultural courses, the tracking of students, role models, and agricultural migrants. (HBC)

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MEXICAN AMERICAN YOUTH AND VOCATIONAL EDUCATION IN TEXAS:

SUMMARY AND RECOMMENDATIONS

Submitted to

The Division of Occupational Research and Development
of the
Texas Education Agency
Under Contracts 29148 and 38064

by

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This publication contains a summary of principal findings of the report, Mexican American Youth and Vocational Education in Texas, published by the Center for Human Resources, College of Business Administration, of the University of Houston, in February, 1973. It also contains the recommendations included in the larger report.

SUMMARY

This project upon which the report is based was conducted under a grant from the Division of Occupational Research and Development of the Texas Education Agency (TEA) and under the auspices and formula-matched funding of the University of Houston. The project functioned as an operational unit of the university's Center for Human Resources of the College of Business Administration. The TEA grant commenced in July, 1971, and was to terminate the end of December, 1972. For purposes of putting final inclusions in the project report and for its publication, the termination date was extended to the end of February, 1973.

The project staff was responsible to the Director of the Center for Human Resources (who also worked as a co-investigator of the project), and consisted of a Director, an Associate Director, three Research Associates or Assistants, and a large number of student assistants, all based in Houston. Additional contracted personnel were employed in local communities to assist in the field operation phase of the project.

The instruments used in the field phase of the project, and the number of each submitted to analysis were as follows:

Form A:	Vocational education (VE) students	1056
Form B:	Nonvocational education (Non-VE) students	637
Form C:	Vocational education graduates	62
Form D:	High school dropouts	146
Form E:	Employers	45
Form F:	Parents of vocational education students	90
Form G:	Community (school personnel, placement personnel, community leaders)	105

A total, thus, of 2141 instruments were accumulated and analyzed. The A and B instruments were identical with the exception of three pages at the end for VE students (A) only. They were, thus, combined into a common Form A/B administered in the same way to both types of students with special instructions for VE students.

All instruments were pretested in Corpus Christi, and final versions were administered in ten communities in four geographically and/or sociologically distinct areas of Texas: Major inland cities--Houston, San Antonio and Austin; West Texas--El Paso and Midland-Odessa; Middle Rio Grande Valley --Laredo, Del Rio and Eagle Pass; Lower Rio Grande Valley--Brownsville and McAllen.

Both VE and Non-VE students were sampled systematically, a technique that approximates probability sampling, in each community. Purposive representative samples were selected of all other groups in each community through leads provided by community liaison people. The project staff cautions over-inference from any of these samples to populations that markedly differ from those studied but, when applied to analogous populations, the observations should possess logical validity.

The tables generated for use in the report were derived, in large part, from computer output of the Univac 1108 installation at the University of Houston. Both prepared and special programs were used in the generation of analytical materials.

The entire project was monitored and assisted by an Advisory Board consisting of prominent and knowledgeable representatives of educational systems at the secondary and post-secondary levels, placement agencies, state entities concerned with vocational/technical education, and community

agencies serving the disadvantaged Mexican American population. The Chairman of the Board was the president of the Houston Community College System.

The situation of Mexican Americans in Texas and in the nation was reviewed to provide a background against which the observations made in this report can be seen more lucidly.

A demographic profile of the Mexican American in Texas reveals that he is more economically and educationally disadvantaged than his Anglo American counterpart. While the pattern of deprivation is similar in all parts of the state, the intensity of deprivation varies from region to region. The counties along the United States-Mexico border, where the concentration of Mexican Americans is the highest, are the areas in which Mexican Americans experience the highest levels of unemployment, the lowest per capita income, and the lowest level of educational attainment. Mexican Americans living in large cities in Texas tend to experience lower unemployment rates, have higher per capita incomes and have a higher level of educational attainment than Mexican Americans in other parts of the state. However, even in the large cities, their socioeconomic indicators are still lower than for the general population.

A review of pertinent literature for the nation as a whole suggests that the relationship between Mexican American culture and their status in society--socially, economically and educationally--is still somewhat controversial. It is apparent that those persons who come from an economically disadvantaged environment, and one in which academic success is not emphasized or rewarded, are hindered in their intellectual and academic development. It appears that although the Mexican American continues to lag behind

the general population in educational and employment attainment, some improvement in socioeconomic status seems to be taking place. This may be associated with the fact that Mexican Americans themselves are beginning to take a more active role in their own affairs.

Additional background to the observations made in this report was presented in an overview of the development and present circumstance of vocational/technical education as it affects young people who are trying to make the transition between high school and the world of work. They are often handicapped by a lack of adequate or appropriate knowledge, training and skills (occupational, social and academic). Disadvantaged youth, especially those from minority groups, are characterized by the same inadequacies but more severely.

Attempts to alleviate some of these problems have increased the scope of vocational education and prompted the initiation of a "career education" approach in many educational systems throughout the country.

In Texas, as throughout the country, vocational education programs are increasing. The state government and TEA have given it more attention and have also made strong positive commitments toward both vocational and career education. Texas has made progress in the implementation of vocational programs. However, such gains have in many instances not been made fully available to those segments of society which need them most: the socioeconomically disadvantaged. Most Mexican Americans in Texas fall into this category.

An examination of the ethnic structure of the Texas labor force indicates that Mexican Americans hold a disproportionate share of the common labor, semiskilled and farm jobs. On the other hand, Anglo Americans have

a disproportionate share of the professional, technical, managerial, clerical and sales positions. Mexican Americans and Anglo Americans are about equally likely to hold craftsmen and foremen jobs. In general, Mexican Americans are more likely to have blue-collar jobs, Anglo Americans white-collar jobs. This pattern exists in all four of the regions surveyed as well as in the state as a whole. Since Mexican Americans constitute a solid majority of both the population and labor force in a number of the cities surveyed, it can be concluded that Mexican Americans do not gain substantial economic benefits simply because they comprise a numeric majority in a given area. Even in areas where Mexican Americans account for over 75 percent of the labor force Anglo Americans are still more likely to have white-collar jobs.

When vocational education enrollment patterns are compared to current labor force structure and projected occupational demand, it appears that a serious mismatch exists between the skills demanded by the labor market and the training provided by high school vocational programs. This mismatch exists both for the overall enrollment patterns and for the specific enrollment patterns of Mexican Americans.

Many Mexican Americans in Texas support the concept of vocational education. Some, however, voice misgivings about the operation and administration of such programs, and others believe that Mexican American children are tracked into vocational curricula and thus deprived of the opportunity for a college education. Vocational education still suffers from an "image" problem in the Mexican American community. Many Mexican American parents prefer that their children follow a college preparatory rather than a

vocational curriculum because society, in gereral, confers more prestige on occupations which require higher education.

Students

Student respondents were selected by a systematic sampling procedure, controlling for grade and ethnicity. Only a few students were from the ninth grade, the others were from the tenth through twelfth grades. All respondents were Mexican American.

The VE and Non-VE samples were not selected on the basis of any other characteristics or attributes, yet there is a strong similarity between them. VE students were somewhat older and slightly more advanced in school than Non-VE students; they had a larger proportion of males, and they had more native-born parents. VE students also had more family wage earners in the skilled crafts than their Non-VE counterparts. Both samples can otherwise be described as consisting of young unmarried Mexican American high school students, Texas-born American citizens, of relatively large families whose parents had little formal education (about the sixth grade on the average). The head-of-household of students' families were generally the father, usually an unskilled or semiskilled worker. A striking majority of the students came from families of low social status, significantly lower than might be expected judging from comparable data for the state as a whole, a factor that may be explained by an unavoidable bias in the local selection of student samples.

Many students, but not a majority, worked out of school, averaging $1.67 per hour , with VE students dedicating more hours to such employment than Non-VE students. Students' attitudes toward life, school, and cultural

orientations were similar for both samples, with VE students favoring those aspects of existence, within and outside of school, supportive of vocational/technical training for themselves and for others. VE students knew much more than their Non-VE counterparts about vocational education offerings, but neither sample indicated that they wished to know more about such programs.

As sources of assistance in finding jobs while in school or upon graduation, the importance of parents, friends, and school counselors was emphasized by both samples. Of particular interest is the importance attributed to vocational education teachers as job counselors and as resources in finding jobs. All students gave indications of their need for preparation for the problems of the world of work and strongly supported the idea of a special course in job-hunting problems while in school. Both groups of students showed relatively accurate knowledge of the characteristics of job holders at various levels of the occupational hierarchy.

For both samples, it is apparent that parents are strongly supportive of their children's educational programs but do not have much personal input in them and do not participate in school-oriented activities.

As students view their future, it appears that few of either sample engage in unrealistic fantasies and, although there are differences in how both samples see their "ideal" and "real" future jobs, they show an essential pragmatism with regard to the coming years.

Nowhere is this pragmatic approach to life more obvious than in the views of both samples concerning post-high school alternatives. For both VE and Non-VE students a marked first preference was to find a steady job. A second alternative for VE students was to attend a school or institute for post-secondary advanced vocational/technical training, and for Non-VE students, to attend

a college or university--both alternatives not surprising in light of their secondary school orientations. But the first alternative--a steady job--is most remarkable, and demands some further explication.

About the same time as this project was in its field phase, the Texas State Technical Institute (TSTI) was testing an instrument designed to assist local school district administrators and counselors in appraising post-secondary educational needs. The instrument was tested in North-Central Texas, in the South Plains, and in a school district north of Houston. The lead item in this instrument dealing with post-high school alternatives was actually borrowed and modified from an item in an early version of this project's Form A/B. This allows for some comparisons between respondents in both projects. Almost four times more students in our samples than in the TSTI samples preferred a steady job; more than twice the number of our samples than the TSTI samples were thinking of the military service; and not even half as many of our samples as the TSTI samples were considering a college or university.

The TSTI samples were drawn from all high school students in the sampled areas regardless of ethnicity and socioeconomic position. Our A and B samples were Mexican American and disproportionately from families of lower social strata. In essence, the TSTI profile of responses represents an overview of post-high school alternatives for the general, predominantly Anglo American, predominately middle class, high school population. This project's profile of responses, on the other hand, is that of an ethnically distinct, poverty-bound, high school population. Poor young people, especially Mexican American poor young people, approach their future lives with a profound realism that cannot dismiss the need for immediate and steady employment

from their vision of a future life. Their dreams are constrained and molded in terms of their life experiences or perhaps, even as teenagers, they have already abandoned dreaming.

As the data on post-high school alternatives are reviewed, it is apparent that both VE and Non-VE students exhibit a strong tendency to think of the future as a logical extension of the present. Whether expressing their desires for location of a possible university or technical institute they might attend, or of the possible location of their own business, or of the place they might be stationed while in the military service, there is a singular tendency to want locations to be close to home. VE students especially see their future as job-focused and value their vocational education as a vehicle leading to a more adequate job-life (for which they feel more adequately prepared than Non-VE students).

Female respondents of both samples show a general rejection of the "stay-at-home-mother-wife" configuration traditionally assigned to Mexican American women. They see education as their right, and their future plans are strongly biased in favor of working, if not married. Even if married, although most would opt for the traditional role, almost half the girls in both VE and Non-VE samples would want to work.

Regarding the possibility of moving away from one's home, about three out of ten of both samples would not consider migrating. Those that would consider migration indicated that they would do so chiefly for job-associated reasons, Non-VE students more than VE students believing that there were less economic opportunities in their home cities.

A number of special items in the A/B instrument were addressed only VE students, and a number of special tabulations were made only for VE students.

Almost half of the VE sample were in Trade and Industrial Education programs (OE Classification, 17), the most popular of these, Automotive Mechanics. The median number of semesters in vocational education programs was 2.25. Of those who held out-of-school jobs, half indicated that these jobs were directly or indirectly related to their in-school programs. Most instrumental in helping students select a vocational/technical alternative in high school were vocational education teachers, parents, and school counselors. The most important means of learning about vocational education programs for students in the sample was through friends at school and through school counselors. The most important personal reasons for selecting such programs were that they might help to learn a skill and that they were interesting. VE students, in general, definitely liked the programs in which they were enrolled, wished to remain in these programs, and felt they would be helpful in the future. Only a third of the VE sample felt that their programs would not be related to future jobs or did not know if they would be related to future jobs. More than four out of ten noted that Spanish was often or occasionally used by their vocational education teachers, although eight of ten felt that the use of both Spanish and English could be helpful to them.

In a number of limited comparisons between male and female VE students, few attitudinal differences were noted. Female students were more inclined than male students to see school work as a preparation for citizenship, liked school better, were more positive about the value of vocational education, and considered dropping out less. Females also stressed more the general value of education, the need for happiness in work more than money, and seemed to like the idea of work more than their male peers. Male VE students appeared to be more culturally conservative than females by being somewhat more

supportive of the idea of limiting education for girls and by not encouraging them to work. Females indicated a greater need to plan for their futures and to better their abilities to speak both English and Spanish.

Although there are differences in minor post-high school alternatives, the three major alternatives--a steady job, post-secondary vocational/technical training, and college--are the same for both male and female students.

Post-high school alternatives for VE students, cross tabulated by grade, age, nativity of father, region of state, and social status, indicate that the first alternative is consistently the same--a job after high school. Variations in choice patterns differ from one control variable to another, but the major alternatives, though differing in intensity of choice, remain essentially the same.

Vocational Education Graduates

Like the students, VE graduates were mostly single, and reported low educational and occupational levels for their parents. Most VE graduates indicated they came from lower class families.

The VE graduates had been active in school activities while in high school, and felt their education should have provided them with both general and specific skills. They described the typical VE student as practical and as a person concerned with making a living and getting a good job.

The need to get a job was especially evident when the post-high school experience of the graduates was described. Nearly all the respondents had worked at some time since graduation, mostly in "2000" and "3000" series jobs (Dictionary of Occupational Titles classes). Only half felt that their high school training was related to their post-high school jobs.

The desire for further education or training was expressed by nearly all of the VE graduates. Many reported taking some type of advanced training since leaving school, indicating that their initial experience in the job market revealed a need for further education.

Graduates also endorsed the idea of an occupational education course in high school to aid students in job hunting.

Cultural stereotypes were not evident from the responses of VE graduates concerning goals and future plans. Girls wanted to work, even after marriage. All the graduates were future-oriented and proud of their cultural heritage. The graduates were quite willing to migrate, apparently recognizing the economic limitations of their home city. About one-third of the VE graduates did not expect to attain their ideal work choice in life.

As with other groups interviewed, the parents of VE graduates had been passively supportive of their children's education, but did not actively participate in school activities.

Dropouts

Dropouts came from poor families, and often were themselves principal wage-earners The need to get a job was of primary concern to them and, indeed, was the major reason for leaving school.

The dropouts' perceptions of vocational education indicated their emphasis on the potential benefits which might be gained by an increased level of skills. The typical VE student was described as one who has to make a living, who is interested in "real" things, and who is too poor to make it in college. The dropouts themselves listed learning a skill which would increase their chance of getting a job and making a living as principal reasons for entering vocational education programs.

The post-high school experience of most of the dropouts included employment of some type as well as some form of vocational or on-the-job training. Several respondents reported periods of unemployment, indicating some difficulty in finding jobs.

Job hunting itself left many of the dropouts with the feeling that young people were viewed unfavorably by employers. They felt that both age and ethnicity were factors affecting the availability of jobs.

Particularly interesting were the dropouts' attitudes toward Mexican nationals. More than did the VE students, dropouts viewed Mexican nationals as direct competition. They felt that employers gave preference to Mexican nationals for certain jobs. Dropouts did not feel "green carders" should be allowed to work in the United States.

Dropouts recognized the necessity of leaving their home city in search of employment. Reasons for leaving included the lack of jobs and the low pay level in the home city.

For advice concerning both school and work, dropouts usually went to their family and friends. School personnel and employment counselors were rarely mentioned, indicating a lack of interaction between school personnel and the dropouts while they were students. Parents were reported to support children's school activities, but were not actively involved.

Occupational knowledge was seen as important by dropouts, and eight out of ten would have been interested in a course dealing with occupational awareness and job hunting while they were still in school.

Employers

Employers contacted viewed vocational education in the high schools rather positively, but many felt that the real training that young people

acquired came from on-the-job experience. As one employer stated, "I think it is up to the schools to provide the student with entry level or basic skills--we will then train the student in a specific skill."

Employers felt that high school vocational programs were doing a better job than general or academic programs in preparing a student for the realities of the world of work. Lack of experience, lack of skills, and the inability of students to present themselves favorably were the three major problems employers thought were faced by young people in job-seeking.

Employers saw language and close family ties as retarding cultural factors for Mexican Americans. Introduction of job orientation or "human relations courses" in the high schools were seen by employers as the best methods of alleviating job hunting problems among youth, especially Mexican American youth. Employers felt that closer cooperation with schools and increased placement activities by the schools would benefit job-bound students.

Parents

Parents of VE students were heads of moderate sized, relatively stable families. Their main concern was about economic problems, a fact not surprising since their socioeconomic status was low.

Parents were supportive of their children's education experience, encouraging them to complete high school. Their perceptions of what the school should do included general skills training as well as specific technical training. They felt vocational education would be beneficial to their children, but they were not as enthusiastic about these programs as were VE students.

Parents felt their children would get a job or go to college upon graduation from high school, although they were less optimistic about the occupational

level that could be achieved by their children than were students themselves. Success was defined as "job satisfaction" rather than the amount of money made, and this attitude corresponds to that of VE students.

Parents, like VE students, did not fit a cultural stereotype. They favored women working even more strongly than the students, perhaps because they recognized the practical benefits of a second income in a family group. Parents were future-oriented, and were proud of their ethnic heritage.

In general, the need for their children to make a living was of major concern to parents.

Community and School

Community and school informants interviewed generally exhibit a positive attitude toward vocational education. Many, however, expressed reservations about the adequacy and administration of high school vocational education as a career alternative for Mexican American youth.

Some community and school people felt that vocational programs were not meeting local needs because of inadequate instruction. They believed that many Mexican American children received inadequate or no counseling at all and, consequently, school districts needed to expand and improve counseling services. Some felt that Mexican American students were often channeled or "dumped" into vocational education and, therefore, they could not wholeheartedly endorse existing vocational programs. They wished to see a better screening process for prospective vocational students. In addition, many persons interviewed believed that more Mexican American students should be encouraged to attend a college or university, for they viewed vocational education as a secondary choice. It became evident that vocational education still suffers from an image problem in the Mexican American community.

Despite the reservations toward vocational education expressed by community and school people, they felt that many of these problems could be overcome by initiating changes in school systems and by modifying attitudes in the community. They called for more inter- and intra-school communication among vocational teachers, counselors, administrators and the community at large. Such changes could be stepping stones to a more general acceptance of vocational education as a viable career alternative for all youth, particularly for Mexican American youth.

Community and school informants were in agreement, however, that vocational programs did a better job than general or academic programs in preparing youth for employment. Most felt that young people acquired occupational skills mainly through on-the-job experience, on their own initiative, or through high school vocational programs. Although many did not believe that community colleges provided good job-oriented training, they indicated that these types of institutions will become increasingly important in the future.

Community and school respondents cited an almost equal number of advantages as of disadvantages for Mexican American students participating in vocational education. The disadvantages correspond to the above-cited reservations concerning vocational education, while the advantages included the provision of work experience and skill training which could lead to opportunities for better jobs and higher wages.

Community and school respondents listed several areas in which they believed students would encounter problems in obtaining jobs. Lack of jobs and low wages locally were seen as major problems, particularly in the south Texas and border areas. Inadequacies in training and education, poor

job orientation, and lack of experience were seen as problems characteristic of youth in general. Bad work habits and negative work attitudes were also seen as being detrimental to the employability of young people. In addition, they saw Mexican American youth encountering other difficulties. Language problems, an inability to sell themselves to employers, discrimination, and the "green card" competition in the border areas, considerably hindered the employment possibilities for Mexican American youth. Some respondents felt that low aspirations and a seeming lack of confidence in job-seeking were negative factors associated with Mexican American cultural background. On the other hand, others believed that being bilingual was a tremendous asset possessed by many Mexican American young people, but that it was not fully utilized by them.

RECOMMENDATIONS

The Manpower Background

The nation has been in the throes of developing a manpower policy throughout the 1960's and into the 1970's, and in the past two or three years states themselves have been concerned with manpower policy. Generally speaking, manpower policy would encompass a study of the labor force and the supply of jobs and developing jobs, the resultant demand for workers to fill those jobs (especially in terms of the education and training needed to fill them), and finally the matching of workers with jobs. Since the early 1960's the nation has not been able to supply adequately educated, trained workers to fill developing jobs. Since the education and training received in vocational education is more directly related to the labor force than other education at the high school level, it must be an integral part of manpower policy in the state, and the very success of manpower policy may depend upon the pattern of vocational education. With this in mind, it is well to look at some of the broad aspects of manpower, especially in terms of the role of vocational education, before proceeding to recommendations resulting from this project.

In terms of the demand for workers in the State of Texas due to expansion and replacement for the period 1968-1975, it is important to notice that more than a quarter of a million, or 20 percent, of all the

jobs developed during this period will be in clerical occupations. This is closely followed by professional and technical jobs, which make up 18.8 percent of the developing jobs, and service occupations at 18 percent. Approximately 8.2 percent of the demand is for sales workers. These percentages indicate that more than two-thirds of the developing jobs to which vocational education can relate are in white-collar and service categories. Blue-collar jobs make up only 23 percent of the total--almost evenly split between craft and semiskilled occupations. The farmer and farm worker category makes up only 1 percent of the total. Mexican American workers on a statewide basis are much less likely to fill white-collar jobs than are Anglo Americans and more likely to fill blue-collar and farm jobs. All of this is very significant for vocational education, as it can be a major vehicle for imparting the training which will aid in matching workers with jobs, and it especially can be the vehicle to educate and train Mexican Americans so that they will have an equitable share of the better paying, more highly skilled jobs.

Unfortunately, the statewide experience of vocational education would indicate that it does not serve as this important manpower vehicle, either generally or for Mexican Americans specifically, and it will not serve in the future if past trends are to continue. True, there has been an increase in the number of students enrolled in vocational education in recent years, and more than 40 percent of all high school students have some vocational courses today. However, this percentage is less than the percent in vocational education twenty years ago. More important, however, is the distribution of these courses. In the 1971-72 school year, more than 53 percent

of VE students enrolled in Useful Homemaking. When vocational agriculture is added, more than 70 percent of all VE students are involved in just these two areas. The number in vocational agriculture alone is more than five times the total number of job opportunities estimated for the 1968-75 period. Even in the face of this imbalance, the number of teacher units has increased in both of these areas. While a majority of all jobs which can be related to vocational education are developing in the clerical, sales, health, and technical occupations, less than 11 percent of all VE students are enrolled in courses related to these occupations. It is apparent that far too few students are enrolled in these areas, and Mexican American students are even less likely to be enrolled in them.

In summary, this look at the manpower environment indicates that Mexican Americans are poorly represented in the statewide labor force, and historically there has been a gap between developing jobs and vocational patterns which would affect all VE students--especially the Mexican American VE students.

The Nature of These Recommendations

One of the objectives of this project was to submit recommendations to the Texas Education Agency for possible assistance to the agency itself and to others concerned with Mexican American youth and vocational/technical education in the state and elsewhere. The recommendations were made on the basis of the analysis of data gathered, reinforced by observation and discussion in the field.

This study has been a limited empirical attempt to understand the dynamics of some phenomena which previously had not been well understood. If the research effort has been earthbound and cautious, the recommendations stemming out of the project's work are limited and specific- limited in the sense that they are bound by the parameters of the project, and specific in the sense that they may now be acted upon realistically by the individuals and agencies concerned.

Recommendations are functions of needs, felt or perceived. The authors have accepted the roles of interpreters and synthesizers of the needs expressed, directly or indirectly, by the respondents and informants. They have also accepted the responsibility of indicating other needs, perceived from the vantage point of analysts who, perhaps, have been able to see a larger picture of some phenomena than those who are involved with them on a day-to-day basis. A number of the recommendations only could have come about through the year-and-a-half research experience.

The recommendations are divided under three rubrics: General Recommendations, Recommendations Specific to Mexican American Youth, and Recommendations for Further Research. It is recognized, of course, that this project was exclusively oriented to Mexican Americans, and this fact cannot but influence all recommendations of the first two categories to some degree. As noted in the full report, however, there were instances in which total educational and community structures had to be seen in order to place properly the situation of Mexican Americans, especially Mexican American youth. And, as one looks at those recommendations directed to the situation of Mexican American youth, with some modification, it is

possible to envision their applicability to other minority groups or to other socially and economically deprived segments of the general population. The classification of recommendations under I or II is a matter of organization, not of content, for the substance of any statement may be seen as possibly influencing others anywhere along the total array of recommendations in either category.

I. General Recommendations

A. Career Education

A major development which has attracted the attention and dedication of many of those who have witnessed the growing gap between the educational system and the world of work is career education. Without doubt, the need for continuing study of the importance of career education and the need to incorporate findings, whenever possible, into existent structures is affirmed. In regard to career education, the following recommendations are made.

1. Occupational Information

Student respondents in this study were not fully informed about vocational/technical alternatives, and the diffusion of information concerning these alternatives was more informal than formal. Based on observations made in the field and through well-documented sources, it is evident that the critical period for school dropouts--especially for Mexican Americans--is considerably earlier than the last three years of high school, although this is the level of the school population from which almost all

the respondents were drawn. We found that many students drop out of school because they simply do not see its value as a vehicle to the world of work.

RECOMMENDATIONS

There is a real need to start total career information as an integrated part of the curriculum early in primary school and to retain this as part of curricula through primary and secondary schools.

An essential part of career information should include complete details, appropriate to grade levels, of vocational/technical programs and opportunities at secondary and post-secondary schools in the community and in the local area.

2. Counseling

One of the most important ancillary training services is occupational counseling. In this regard, it should be noted that a majority of all sampled students, both VE and Non-VE, ranked a steady job at graduation as their most inportant post-high school alternative. Furthermore, most in-school students and VE graduates rank as their three most important problems in relation to their post-high school plans,

--How to get a job,

--Where to look for a job, and

--The type of education and training needed for the specific jobs.

Even students who had dropped out of school felt strongly about this, and put extremely heavy emphasis on the need for occupational information. However, routine school counseling can be, and often is, a perfunctory

activity: counselors are overburdened with bookkeeping chores and, typically, are assigned several hundred counselees. In the particular schools surveyed, it appeared that most students required considerably more attention regarding career possibilities than could be handled in rapid, routine sessions. There is generally a lack of adequate counseling staff and a lack of adequate counseling time for each student. Of the graduates interviewed, more than four out of ten found jobs on their own, approximately four percent were helped by a school counselor, and none were aided by the Texas Employment Commission.

Another part of the counseling problem is that counselors seem to have very little occupational information or awareness. This need is typically not met in their university education, and the general requirement that counselors be teachers does not enhance their occupational knowledge. There is little testing for aptitudes and interest in occupational education areas and relatively little knowledge of the students' alternative post-high school vocational/technical opportunities. Many of the students and graduates surveyed indicated that they were not encouraged to go into vocational education by counselors and teachers. This lack of a strong occupationally oriented training background on the part of counselors and teachers adds to the difficulty of proper vocational education planning. About half of the dropouts said that vocational education classes which they wanted to attend were full, and almost a third said that they were interested in courses which were available at other schools but not at their own. Finally, there was a widespread feeling (from more than half of the community respondents) that many Mexican American students were placed in vocational education programs only because they were Mexican American.

RECOMMENDATIONS

Career counseling in which a strong relationship is developed between a student and his counselor--where the counselor is less a functionary of the "system" and more the advocate of the career needs of a student--should be initiated at lower grades and should continue through high school so that a student's awareness of the possibilities in the world of work grows as he does.

We feel that the requirement that counselors come from teacher ranks should be eliminated, and training in occupational counseling should be made a requirement for secondary school counselors or that such counselors should at least have occupational counseling experience.

Counselors should make special efforts to understand the special sensitivities of minority students.

Counselors should get out-of-school placement experience as soon as possible. Summer employment with the Texas Employment Commission, arranged in collaboration with school districts, might supply this experience.

Counselors should work routinely with placement personnel, especially those of the Texas Employment Commission, for the purpose of testing the occupational interest and aptitude of students and developing their own occupational awareness.

Each counselor should endeavor to inform himself of student feelings and attitudes as expressed in the report of this and other analogous projects.

Innovative approaches to career counseling should be endorsed or inaugurated. Group counseling could be of benefit to all VE students, but expecially to disadvantaged minority students. Trained group counselors or teacher-trainers in group dynamics and career counseling (as in the Group Guidance Program) could reach many students; and, more open and frank discussion of career problems could be elicited than would be found in routine counseling sessions.

3. Work Orientation Course

Students in this survey expressed strong support for the idea of inclusion of a special course in the high school curriculum which would directly relate to problems of the world of work, specifically those problems related to seeking a job. As a whole, the first preference of students upon graduation from high school was to find a steady job. Although VE students felt more capable of finding a job, all students felt that such pre-job-seeking preparation was important. Female students, especially, expressed a strong need for this type of in-school orientation.

RECOMMENDATION

School systems--in conjunction with the Texas Employment Commission or with other placement agencies--should take the necessary steps in curriculum revision to include

a job-seeking preparatory course for all students. This should be a legitimate credit course, financed by funds allocated for vocational/technical training.

4. Placement Services

The deficiencies of students in approaching the world of work, their expressed desire for job-hunting preparation, their intent to enter the labor market after graduation, and the unimpressive job history of VE graduates, all point to the need for early placement counseling and placement services. Traditionally, it has not been the function of secondary schools to assist their graduates in obtaining employment. This is a corollary to the assumed role of secondary schools as a gateway to college and university work. (Interestingly enough, many colleges and universities are very involved in job placement. Perhaps this grows out of the conception that in post-university alternatives, "a steady job" assumes a superordinate priority, and that the university is the gateway to the better opportunities within the labor force.) Those secondary schools which serve the educational needs of minority groups or of poverty groups--as indicated by the student respondents in this study who are both minority and afflicted by poverty--would do well to reconsider their services to the communities from which they get their students. In this study, such students have repeatedly shown their concern about opportunities for post-school jobs. To educators sensitive to the needs of youth, the recognition that a young person may wish to abandon the possibility of a brighter future goal in favor of an immediate job is vexing, and the fact that many schools should even facilitate such abandonment is disheartening. However, it is hardly

a matter of debate. These young people are honestly expressing a need; a need which generally is not met.

RECOMMENDATION

School districts should establish placement units within high schools to assist job-bound graduates and dropouts to optimize whatever potential they may have for the labor market. In Texas, a feasible approach would be the collaboration of school districts and local offices of the Texas Employment Commission in the creation and maintenance of in-school placement units.

5. In-Service Training

The recommendations above could involve school officials, counselors, school placement personnel, and, in no small measure, teachers. The importance of teachers, especially of teachers in vocational education programs, as resources to whom students resort for career guidance, occupational knowledge, and job placement was well documented in this study.

RECOMMENDATIONS

School districts should initiate in-service career and occupational training for their personnel.

All such personnel should be appraised of the feelings and attitudes of students and should be given a full orientation to the changing requirements of the labor market locally and regionally, and they should be made aware of the complete range of manpower-related agencies, activities,

and services available to them, to students, to dropouts, and to graduates. With such information they should discuss and develop new dimensions within their own roles, as well as the possible establishment of new roles, devoted to assisting students into the world of work.

B. Organization and Planning

From a point of view which encompasses vocational/technical education in the state as a whole and in the ten target communities specifically, a number of observations may be made concerning the organization and planning of vocational programs. While many organizational and planning deficiencies have been encountered during the course of this project, some productive innovations have been seen, and some other possibly productive innovations have been suggested. There are several areas, however, in which many deficiencies were especially noticed.

1. Manpower

As expected, throughout the state and in the communities surveyed most Mexican American workers are concentrated in blue-collar, low-skilled, low-paying jobs. On the other hand, in every school district surveyed, the Mexican American is over-represented in vocational education programs. This could be of benefit in times of manpower crises, for if vocational courses were designed to meet labor market needs over-representation could correct some of the labor force inequities. At the present time, even though production agriculture and useful homemaking were left out of available local data, the composition of the other courses taken by disproportionately large numbers of Mexican Americans does not match either local or state labor force trends.

Generally speaking, the composition of vocational education courses in all areas continues the pattern of inequity developed in the labor force in that the Mexican American is far less likely to be enrolled in white-collar courses--technical, distributive education or office education--and far more likely to be over-represented in blue-collar courses for trade and industry. Some over-representation in the blue-collar area might be positive if the courses lead to entry level, apprenticeship, or skilled jobs. Even so, substantial over-representation of the Mexican American in trade and industry courses at the expense of white-collar oriented courses is not in his best interest.

While recent trends in the allocation of vocational teacher units indicate that the units devoted to vocational homemaking and vocational agriculture constitute a smaller percentage of all vocational teacher units than in the past, the absolute number of teacher units in each of these areas has continued to increase. The increase in vocational homemaking has been substantial--from less than 1700 teacher units in 1963 to more than 2400 teacher units in 1973.

Because the range of occupational training provided within the trades and industries group is so broad, it is not possible to make a single general or inclusive statement concerning the appropriate level of enrollment for this group. Each of the specific courses of instruction should be evaluated individually.

In summary, in every school district surveyed, Mexican American students are more likely than Anglo American students to be enrolled in vocational education. While most of the developing job opportunities which

can be related to vocational education are in white-collar occupations, Mexican American students are more likely to be enrolled in vocational courses which are inappropriate to developing better job opportunities and which tend to perpetuate the inequitable distribution of better paying jobs.

RECOMMENDATIONS

A larger percentage of high school students need to be exposed to vocational education.

The distribution of course offerings should coincide with jobs available in the local labor market; or, when jobs are not available in a local depressed area, with state or regional labor market requirements. To achieve this, there should be a substantial reduction in useful homemaking and agriculture courses and a substantial increase in distributive education, office education, technical, and health care courses.

Special efforts should be made to analyze the content of blue-collar job opportunities in the local labor market in relation to the content of trade and industry courses to ascertain which courses are more likely to lead to skilled jobs. The use of variables such as current and future job openings, opportunities for advancement, comparative wage scales, availability of apprenticeship opportunities, and the match between training and job openings, would aid in establishing training priorities.

Each school district should produce a readily available, annual public document which should include the

total number of high school students by major educational programs and an ethnic breakdown for those students in vocational education by instructional categories.

2. Vocational Education Record Keeping

The greatest difficulty met in the course of this project was the lack of well-organized data concerning vocational education. At local levels there were major deficiencies in record keeping. In some districts a rule of thumb seems to have been to keep only those records which are required by local, state, or national regulations, but not records which could assist local districts in better evaluating the effectiveness of their vocational programs. A case in point might be follow-up records for vocational graduates. These records are, in many instances, flimsy and, at times, inaccurate. It is possible to get a better idea of the post-high school progress of many VE graduates by informally interviewing a teacher who had helped train and place them, who keeps in touch with them, and who may continue to assist them with subsequent job placements, than by looking at partial, fragmented official records kept in a school office. It is recognized, of course, that record keeping is an exponentially growing responsibility for school officials, counselors, and teachers and that it must be kept to manageable dimensions, or schools would float away in a sea of paper. On the other hand, if vocational/technical education is to have meaning as a truly viable secondary educational alternative, it must be subjected to evaluation and scrutiny which, in most cases, can best be accomplished by the inspection of carefully documented records. Much, then, would depend upon the value a school district--or the community to which it pertains--places on vocational/technical and career education.

We commend the recent attempts of the Texas Education Agency to computerize some of this local vocational educational data at the state level; however, it is still in a form which is difficult to use and requires refinement. The frustration of evaluation is heightened, and the difficulty of meaningful organization and planning is increased, when data on courses and students in production agriculture and useful homemaking are not even received from local vocational education programs. This much is certain: the dynamics of vocational/technical education in Texas cannot be well comprehended unless there is adequate record keeping on both local and state levels.

RECOMMENDATIONS

Accurate data should be kept at the local level on all programs, courses, enrollments, and key sociodemographic information on students to be forwarded to the Texas Education Agency for computerization. These data should encompass production agriculture, and useful homemaking, for failure to include these data makes it impossible to assess accurately vocational education progress at local levels.

As an aid to organization and planning there should be maintained follow-up records on VE graduates regarding their jobs and pay received and whether or not the jobs were training-related. Comparable records on Non-VE graduates and dropouts would also aid in an evaluation of vocational programs.

School districts should reset priorities so that evaluation of vocational education programs can be made on a regular basis. The Texas Education Agency should continue its efforts to computerize all vocational education information in a form which is easily understandable and readily usable.

3. Occupational Supply/Demand Data

Even when a local school district maintains full and accurate records on vocational education, there are still organizational and planning problems because of the paucity of supply/demand data at the local level. The Texas Employment Commission provides labor force data on an industrial basis by Standard Metropolitan Statistical Area (SMSA), and there is a broad occupational breakdown contained in census data every ten years, but there is no occupational demand data available on a continuous basis. In addition, virtually no attempt has been made to collect occupational supply data on a state or local basis.

The data problem makes it difficult to check the student's perception of what jobs exist against the reality of the job market. It is difficult for planners to decide which courses to offer in the fields of health care, data processing, cosmetology, and business, even when it is known that Non-VE students show a preference for courses in these areas. It is not surprising, then, that three out of four community respondents in this project contend that vocational education courses prepare the student for anything but the world of work. The problem is complicated further by the fact that local school districts must rely upon statewide

sources for this data, for they usually do not have the staff, time, or competence to deal adequately with the problem.

RECOMMENDATIONS

The findings of this project corroborate the recommendation contained in the Third Annual Report of the Advisory Council for Technical-Vocational Education in Texas that the State Board of Education assign top priority to the design and implementation of a supply/demand information system for the state.

This data should be available in occupational categories, broken into many subheadings so that, for example, it is possible to determine if a student with a vocational education specialization in trade and industry is trained for a technical, semiskilled, or skilled job, or perhaps has the necessary training to become an assistant or apprentice leading up to a skilled position.

This system should be developed in cooperation with ongoing efforts of the Texas Employment Commission to establish a better occupational data base for the state.

Local school districts should cooperate by providing local supply information and working locally with the Texas Employment Commission to break down occupational categories to such an extent that it will be clear that the vocational education student is training for an existing or developing job in the local area or in the state.

4. Course and Curriculum Orientation

Student responses to items in the A/B questionnaire and an inspection of current and projected labor market needs in the state, regions of the state, and local communities should lead school districts to make modifications in courses and curricula in order to respond to these insights in current situations. Some examples are as follows:

a. Female Orientation. With the exception of programs in distributive education, office occupations, and home economics, the major interest of secondary school vocational/technical education has been directed toward jobs held by blue-collar males. This study has indicated that Mexican American girls, perhaps the most tradition-oriented of female youth in the state, are breaking with time-honored bounds upon women. By inference, if these young women show signs of a new orientation, this may be occurring with even greater vigor among Blacks and Anglo Americans. Female respondents in this study indicated a strong preference for jobs upon graduation, were very supportive of vocational education for all in the schools, and were even more supportive of in-school job hunting preparation than their male counterparts. In these instances, the responses of male respondents were supportive and tended in the same direction. Many of the school and community respondents felt strongly that female VE students have been neglected in the overall organization of current high school vocational education programs.

RECOMMENDATIONS

Young women wish greater access to the labor market and young men support this aspiration. Given this aspiration,

and the changing labor market, it is mandatory that there be an expansion of courses in distributive education, office education, and health care.

There is also a need to develop courses for girls beyond those which would place them in the traditional female employment areas, including curricula which may have been originally viewed as solely within the masculine province.

b. Non-VE Students. When Non-VE students indicated their three most important post-high school alternatives, one of these was post-secondary vocational/technical education. They had not, however, been attracted to vocational programs in high school. It bears mention, however, that their orientation to jobs and to a job hunting course did not differ appreciably from that of VE students.

RECOMMENDATION

Some form of occupational orientation should be included in the academic secondary curriculum. Vocational/technical offerings should be expanded and better presented to all students. If more attractive programs were introduced at the secondary level, then more students who are concerned with their places in the world of work would select vocational education.

c. Pre-Apprenticeship. One of the best methods of entry into better paying blue-collar jobs (as well as into other jobs where good wages are protected through collective bargaining) is apprenticeship

programs. Where a collective bargaining agreement exists, these programs are generally administered jointly by labor and management. The programs develop employability, guarantee a wage with regular increases while serving an apprenticeship, and result in one's recognition as a skilled worker upon completion. Apprenticeship training is combined with on-the-job experience, the preferred preparation for skilled jobs. It is impossible for vocational education courses alone to give a student status as a skilled worker. Since some job-related training is already being done, there is ample precedent for the high school vocational programs to include still more pre-apprenticeship courses. A majority of the students interviewed for this project had never even heard of apprenticeship programs, only one out of ten parents were union members, and none of the vocational education graduates were currently enrolled in apprenticeship programs.

Union leaders involved with apprenticeship programs, on the other hand, have reported to the project staff that there are not nearly enough vocational students in courses related to skills in sheet metal, electrical work, plumbing, and pipe fitting--all of which could lead students into apprenticeship programs. Also, many high school students who do take the tests for apprenticeship entrance appear to be deficient in the basic mathematics that is required.

RECOMMENDATIONS

Joint labor-management advisory committees should be established in local communities. These committees would advise vocational education administrators of the needs and orientations of the apprenticable trades. These

committees should be broad-based to include apprenticeship coordinators from each trade or craft with apprenticeship programs. Minority representatives should also be included in order to assure proper representation of ethnic groups in pre-apprenticeship and apprenticeship programs.

Apprentices should be included in career day programs in high schools along with labor and management representatives of advisory committees.

Houston has a Mexican American recruiter for building trades apprenticeship programs in order to encourage Mexican American youth to apply and to assure them equal opportunity for admission. Vocational education administrators should discuss the possibility of minority recruiters with similar groups in other cities surveyed in this project as well as in the state as a whole.

Courses should be established in high schools, in consultation with the apprenticeship advisory committee, which could serve as pre-apprenticeship experiences which lead directly into formal apprenticeship programs. These courses should include enough mathematics such as is required in the skills to which the courses are oriented so that students may better be able to pass entrance examinations.

Counselors within the entire school district should advise students of pre-apprenticeship options, beginning with informative, career-identifying sessions in the lower grades. This should be begun long before students are in high school.

d. Part-Time Students. Many disadvantaged students are faced with a difficult decision as they reach maturity: to stay in school or to help earn a living for themselves or to contribute to the family income. This decision is often one of a yes-or-no nature. A middle ground where dropouts may regain access to vocational training is most often filled by organizational programs other than the school. It is almost as if a student first must be lost to the school before any attempt is made to rescue him. Some school districts try to structure part-time curricula to allow the potential dropout to work while attending school, but these efforts tend to be insufficient.

RECOMMENDATION

More part-time vocational programs should be instituted by school districts. There should be more complete programs--especially in vocational/technical areas--which would allow a student to continue with, or to initiate, an educational program which will prepare him for better opportunities in the labor force, so that even while he must earn a living he is still in school.

e. Innovative Approaches. General skills training and cluster training often permit students to move more easily to a variety of jobs upon graduation. Vocational training after school in addition to a regular academic curriculum, such as the Vocational Opportunities in Current Education (VOICE) program in the San Antonio Independent School District, offers students an opportunity to learn skills to meet s ecial needs of their community in addition to their usual school programs. The Houston Independent School District has created highly specialized secondary schools, such as the High School for the Health Professions (in collaboration with the Texas Medical Center) and the High School of Performing and Visual Arts, which provide integrated "vocational" curricula while optimizing interests and capabilities of students.

RECOMMENDATION

More innovative approaches in vocational/technical education need to be developed and instituted whenever possible to maximize the potential which such programs can offer both students and their communities.

f. Regional and State Labor Markets. Although a large number of students have stated that they would not migrate, an even greater number noted that they would leave their home communities for better economic opportunities elsewhere.

RECOMMENDATION

School districts, in evaluating how well they are preparing VE students for labor demands, should look not only in

their own communities but also in the entire region for possible job opportunities.

C. Post-Secondary Vocational/Technical Education

The second most important alternative after graduation for VE students and the third for Non-VE students was post-secondary vocational/technical training. The students' preference was that this training be offered at a junior or community college or at a technical institute located either in their home community or close by. There are some implications in this study, therefore, for involvement of junior colleges as well as secondary school preparation for junior colleges.

1. Inter-School Cooperation

School counselors of both VE and Non-VE students often do not have constant and reliable information about the courses, curricula, expenses, out-of-school work opportunities, scholarships, and the advantages and disadvantages of every junior or community college or technical institution to which they might refer students.

RECOMMENDATIONS

Since junior and community colleges are either local or relatively nearby, counselors should schedule on-campus visits and develop a continuing, close liaison with college administrators and instructors.

The colleges, on the other hand, should help organize visits, seminars, and special training sessions for the counselors in their region to which local school districts would be receptive and in which they would cooperate.

A continuing network should be maintained of interpersonal contacts and formal liaison for the benefit of the colleges, the counselors, and, above all, the students.

2. Early Information Dissemination

If occupational information as part of career education is introduced in school districts at the lower levels, then post-high school training alternatives could be easily introduced at the same time.

RECOMMENDATION

Information regarding the full spectrum of post-high school educational opportunities should be introduced to students as soon as possible, emphasizing occupational possibilities which may be opened through training at both junior and senior colleges and universities.

3. Inter-School Curriculum Development

School districts should evaluate not only how well they prepare their VE students for the labor market, but also how well they prepare VE students for post-secondary vocational/technical training. A student from a disadvantaged household or anxious to get a job cannot afford the luxury of wasting time. The extra hours, semesters, or years required to be retrained in an area for which he presumably already has been trained is not only time consuming but depressing. It is unfair for a student to approach a post-secondary training program with the idea that his high school vocational education courses have prepared him for it when they have really been inadequate in the judgment of the post-secondary institution.

RECOMMENDATIONS

School districts should work with junior colleges (and, where feasible, with universities as well) in curriculum development so that educators at both secondary and higher levels can have a more realistic appraisal of the performance capabilities of students.

In communities where financial resources are limited, or where duplication of capital equipment might be prohibitive, nearby secondary and post-secondary institutions should collaborate with school districts in the use of available facilities.

4. Inter-School Collaboration on Student Achievement

On this same order, school districts, junior colleges, and universities should study the flow of curricula from one to the other so that a capable student has the option of moving from one level of technical competence to the next with a minimum of wasted time.

RECOMMENDATION

Some vocational/technical education is terminal at the secondary level, some at the post-secondary level, and some at the university level; but, in a system that purports to maximize the potential of its students, sufficient opportunity should be provided by all institutions of learning for students whose educational aspirations rise as they reach the culmination of skill and knowledge of each prior level.

5. Priorities for Community Colleges

Student respondents, both VE and Non-VE, included post-secondary vocational/technical education as one of their principal alternatives after graduation. (And, interestingly enough, so did students surveyed elsewhere in the state by the Texas State Technical Institute.) The demands on community and junior colleges appear to be growing.

RECOMMENDATION

The Texas Education Agency and other entities of state government concerned with vocational/technical education should carefully consider the growing importance of community and junior colleges in this area. Where appropriate, expecially where labor force demands, both present and future, indicate specialized needs may be met by such colleges, high priority should be given to the expansion of post-secondary vocational-technical programs.

D. Communication

In this study, the network--including students, parents, employers, teachers, counselors, and administrators in the schools, and the community --was found to have a number of gaps. Regardless of other factors which may be present to create, sustain, and even widen such gaps, one factor is always present: poor communication. It certainly appears evident that the network cannot operate effectively unless these gaps are narrowed or bridged.

1. The Vocational Education Teacher

The role of the vocational education teacher who tends to be much more than a teacher has already been mentioned. Some within the school system may diminish his importance, but within the system he is closest to the VE student and, for some purposes, he is close to a limited number of Non-VE students who have not been under his tutelage. He is, on the one hand, a respected craftsman who knows his field and, on the other, a special kind of teacher who is not stationed behind a lectern but who works at the side of his students and often instructs them on a one-to-one basis. There is much to be learned from this relationship between teacher and student; and this is of special note when the student comes out of a deprived background. Not all of the aspects of the relationship can be duplicated by others in the system, but the treatment afforded the student as an individual can be. A student from a disadvantaged family usually approaches school with some amount of anxiety and may be awed by its size and impersonal nature. He has little knowledge of, and little experience in, making those overtures and sustaining those relationships with authoritarian figures in the system which can diminish his anxiety and make the system approachable.

RECOMMENDATION

The system's authorities must reach out to students as do many vocational education teachers. School officials, counselors, and other teachers should make special efforts to treat students as individuals. If not, many students will remain alien--some may develop a genuine hostility--to a system that supposedly exists for their benefit; others may fall away and drop out.

2. Parents

Parents, we found, were very supportive of their children's education; yet they participated very little in those school activities designed for them, and they rejected opportunities to visit the school. At the same time, students noted that parental influence in school-centered decisions was quite important. There is an obvious incongruence here. Parents are supportive of a process and help make decisions in that process even though they are poorly informed. Schools, it would seem, have an underutilized but true ally in parents. Greater effort should be made to cement this alliance. Since parents seem to be unable or unwilling to move toward the schools, the schools should move toward the parents.

RECOMMENDATION

Teacher visitation programs, neighborhood educational awareness groups, home follow-up programs in minority areas (such as the Mexican American Student Parent Involvement Program in Houston), teacher-parent and counselor-parent formal meetings reviewing the progress and the prospects for students, and other educational outreach techniques should be used to incorporate parents into the pattern of school life, to allow parents to see school problems as corollaries of their own, and to include them as co-participants in decisions that affect the focal group for both parents and school personnel: the children.

3. The Community

Communication often seems to be minimal between school systems and the greater community, notably between school systems and employers who are, or should be, recipients of the products turned out by vocational programs. Some employers noted that the schools are training students in programs not oriented to the changing industrial and service needs of their communities. Many students are being trained for occupations for which there is already an excess of applicants; and other positions go begging because there are not enough trained workers to fill them. There is a definite need for greater direct liaison between those who prepare students for entry into the labor force and those who determine the composition of the labor force. Several kinds of advisory committees have been utilized to varying degrees in school districts. There are craft advisory groups which have employers as members, but they relate to only one craft. There are program advisory committees, but members largely promote a particular program, such as distributive education. There are advisory councils which may have wide community representation. However, none of these committees is typically broad-based, concentrating major employers and placement personnel in one entity.

RECOMMENDATIONS

Advisory committees to school districts, representing all major employers and placement personnel in the local areas should be established.

These committees should assist the school systems in keeping abreast of local labor market conditions and should

recommend the introduction of courses which would give a greater number of vocational education students the qualifications needed for employment upon graduation from high school.

These committees should serve as major communication links between employers, communities, parents, and students concerned with successful entry into the labor market.

4. The Image of Vocational Education

Without doubt, one of the greatest problems confronted by vocational education is its own image. Both truth and myth contribute to this image. For many years vocational education programs were seen as the dumping ground for those students who had difficulty in keeping up with college preparatory programs in high school, not as truly viable alternatives for sound students who desired occupational education as well as academic and social skills. Many members of minority groups, or those of a disadvantaged background, think that school systems force young people into vocational programs not only to escape the responsibility they owe the students, but perhaps to oppress them. This negative image of vocational education is encountered in every sector of the minority community and can be found among students themselves. Both VE students and Non-VE students think that vocational education is not suited for bright students but is better suited to students who have to make a living, who are realistic and practical, who are poor, who cannot do well in an academic program, and who come from a minority group.

School systems must devote considerable energy to improving the image of vocational education. Changing the name of vocational education

--to occupational education, for example--may be a first step, but it might not be a step forward at all. By whatever name, if such programs are not afforded the same dignity as other secondary programs or given a very special dignity of their own, they will remain inadequate in the public eye. If the interpretation of qualified educators is correct, we are currently producing many more college-bound secondary school graduates than either the institutions of higher learning or, ultimately, the labor force can absorb.

RECOMMENDATION

The generally held view that all students should pursue college preparatory studies must be changed, and the vocational education alternative, with its image elevated, should be stressed. This is not merely a device to change and enhance the picture of vocational education, but a necessary turn of events if school systems are to meet the needs of society.

II. Specific Recommendations

All general recommendations have been developed from this study of Mexican American youth and bear directly upon their situation, but they are also general in that they are applicable to other groups. There are some recommendations stemming from this study, however, which relate more specifically to Mexican Americans.

A. Retardation of Educational Achievements

Post-secondary education at either the junior or senior levels was among the major post-high school choices of the Mexican American students in this study. Yet, Mexican Americans are very poorly represented in universities in the state and, except in regions of the state which are overwhelmingly Mexican American, are under-represented in junior colleges and technical institutes. There is a wide chasm, it would seem, between aspiration and realization.

RECOMMENDATION

The Texas Education Agency, as well as higher educational and secondary educational systems, must evaluate the factors which retard the educational achievements of Mexican American youth after they leave high school.

B. Spanish Language

Students in our VE sample were strongly in support of the use of both Spanish and English in classroom instruction, for they thought that the use of Spanish would be of benefit to them. Both student samples endorsed the idea that fluency in both languages was desirable. If the effective education of young people is more important to an educational system than unswerving retention of policies which may retard educational progress, school systems in predominately Mexican American areas, or with sizable numbers of Mexican American students, should initiate a bilingual approach in vocational education courses. This same approach might be considered for other appropriate courses in secondary curricula.

RECOMMENDATIONS

Teachers should not only be permitted to use Spanish in the classroom but should be prompted to do so.

Teaching materials and aids in both Spanish and English should be equally available for use at the option of teachers and students.

In some areas and for some students (low achievers because of language problems), the fundamental language of instruction might well be Spanish--with English used for supplementary and illustrative purposes.

C. Bicultural Courses

Mexican American students face an Anglo American educational system with a battery of disadvantages ranging from deficiencies in the English language to deficiencies in knowledge of elemental social skills. More often than not, they are rebuffed for their differences and they become the targets of some who want to "Americanize" them. A net effect on the student may be that he is not just considered different, but labeled second class. This hardly enhances his self image or his dignity. Unfortunately such antidignifying attitudes are found in educational systems.

RECOMMENDATION

School systems should be aware of the difficulties of trying to come to grips with two cultures and take measures to counteract them in order to optimize the potential of Mexican American students. Bicultural courses which give a realistic portrayal of the Mexican

American experience in the United States could help students both to be aware of and proud of the impact of their people on the development of their nation, their state, and their community. The dark pages of strife, antagonism, defamation, and prejudice should be included, as these, too, contribute to the student's historical perspective and to the understanding of his own people and of other ethnic groups among whom he lives.

D. "Dumping" of Students

The over-representation of Mexican American students in vocational education lends credence to the charge that they are dumped into these programs. Furthermore, their over-representation in blue-collar related courses and under-representation in white-collar related courses results in a continuation of inequitable labor market patterns.

RECOMMENDATIONS

The distribution of vocational courses taken by Mexican American students should not only coincide with developing jobs in the local and state labor markets, but also should contribute to gaining Mexican Americans an equitable share of better jobs.

Mexican American students should be made completely aware of the entire range of educational choices at each stage of their educational career and should be able to select any program for which they feel qualified.

Those advising the Mexican American student should do so as friendly and interested guides who assist him to realize feasible ambitions and avoid pitfalls, and not as ultimate voices of authority who "know what is best for the student."

E. Role Models

Mexican American youths seldom have role models who are considered successful by society. Parents are poorly educated; fathers are typically at the lower rungs of the occupational pyramid; most of the other adults in their neighborhoods reflect the disadvantages seen in parents. Highly successful Mexican Americans who could be role models may be socially and physically remote from the barrios and colonias.

RECOMMENDATION

School systems should seek to find role models both from within and without the barrios--Mexican Americans whose background, history, and education have paralleled those of the students, but who have now achieved some degree of observable success. It would be ideal if graduates from the same schools attended by students could be included in special school programs and could be available to students for individual consultation.

F. Green Carders

A particular problem affecting the labor situation in border communities is that of the "green carders," Mexican nationals who are permitted to work in the United States. In many border cities, the bulk of the labor force

consists of green carders. Historically, these Mexican nationals have worked for less wages than their American job rivals. Today, the wage gap is much narrower, but it still exists to the detriment of United States residents, for large numbers of green carders still seek and gain employment in the United States. Some community informants indicated that Mexican nationals often worked harder, were more reliable, and were better trained than most Americans who apply for the same jobs. If this is true, then vocational educators are faced with some very special challenges.

RECOMMENDATION

School systems along the border must evaluate their vocational/technical programs as vehicles of preparation of their young people for the job market in competition with green carders. Vocational programs in the border region must be not only adequate, but considerably better than adequate, if their graduates are to compete successfully with green carders. Innovations in training programs should be initiated so that graduates can obtain employment in occupations in which few green carders are trained or are otherwise qualified.

G. Agricultural Migrants

Many Mexican American families in South Texas earn their minimal incomes by following the agricultural migrant streams. In most instances, migrant labor is a family affair, and the net income to a family is in proportion to the number of hard working able bodies that can be placed in the field or in the processing plant. The migrant season may begin in late February

and continue through November, although the season is usually shorter. Young adult members of the family are often removed from school long before the end of one school year and do not return until well after the next has started. For younger children, or for children who require basic academic skills, provisions are sometimes made--however spottily--for school continuity up the stream. For older children, or for children who are in specialized programs, such as vocational education, there is seldom the opportunity for continuity, and they must face the year-by-year consequences of falling behind.

RECOMMENDATION

School systems should make special efforts to see that children of migrant families are not penalized. Innovative approaches must be found to combat this problem. Possibilities include intensive make-up work before and after the migrant season; planning for continuity through the collaboration of educational agencies up the stream who can assist in keeping the VE students from falling behind in school; perhaps subsidizing families so that they can allow their children to remain in school until the spring term is over and to return in time for the fall term.

H. Bilingual Local Associates

It was the policy of this project's staff to augment its personnel in all communities by contracting local individuals to assist, principally as interviewers and administrators of instruments, and also as community

consultants and guides. They were typically of the same minority group as the target population, they were completely bilingual, and many of them were role models who had boot-strapped themselves out of poverty but had not divorced themselves from their ethnic communities. These local associates gave legitimacy and validity to local efforts on the one hand, and gave direction and support to project efforts on the other.

RECOMMENDATION

Projects and programs dealing with ethnic minorities should use local bicultural associates who can serve as effective intermediaries between such endeavors and the minority communities. These personnel should be able to identify with the goals of a project as well as with the population the project desires to reach.

III. Recommendations for Further Study

In the development and execution of this project certain objectives first thought to be attainable had to be modified. This prevented superficial analyses and kept the project from involvement in commitments impossible to meet under the constraints of limited funds, personnel, time, and facilities. The assignment of some objectives to lower priority does not indicate that they were of lesser value. Many still are of great value, but require individualized, special attention, and the organization of efforts specifically designed for their attainment.

In the minds of both the formulators of the present project and the funding agency, some objectives were seen, from the beginning, as logical follow-throughs after this project had been completed.

As this project progressed, other needed areas of research were encountered, many having been generated by the suggestions of local contacts, consultants, Advisory Board members, interested colleagues, and project staff. Areas of application of findings of this report were also brought to light.

The present project has begun the establishment of a data base for the understanding of areas of vocational/technical education previously only poorly understood. The following recommendations are intended to indicate where and how this data base may be broadened and how it may be utilized.

A. Comparative Studies

The present research effort has provided a means for better understanding Mexican American youth in vocational education in Texas. There is no comparable data base for the other major ethnic minority group in the state: Blacks; nor, for that matter, is there a comparable data base for the dominant Anglo American population.

RECOMMENDATION

For a fuller and more comprehensive understanding of youth in vocational education at the secondary level in this state, comparable studies of Black and Anglo American youth are necessary. The present study, plus these additional studies, could provide the educational community with information vital to planning for the future of vocational/technical education in the state at all levels.

B. Career Objectives of Women

The particular nature of our times wherein we are witnessing profound changes in the roles of women in our society--indications of which were certainly seen in this study--prompts the suggestion that there exists a great reservoir of poorly utilized talent and vigor in young women. Many of their needs could be better served through vocational/technical education than through other educational programs.

RECOMMENDATION

The special career objectives of young women in the state should be studied as well as where and how vocational/technical education can best meet these needs.

C. Lower Grades

In this project, the in-school concentration was with students in their last three years of high school who were already committed to graduation. It must be remembered, however, that the greatest number of minority youth who drop out of school, or who are forced out of school, do so by the eighth or ninth grade--before making this commitment. What are the career aspirations of minority children in elementary school before so many drop out? Needless to say, a special challenge exists in the creation of instrumentation which might adequately reflect the attitudes of younger minority children. Attitudinal and aspirational patterns of those who stay in school and those who drop out of school are rooted in their earlier views of themselves and their futures. The need to identify this self-view at an early stage is obvious.

RECOMMENDATION

A study of the same basic variables evaluated in this report, with specially designed instrumentation, should be sponsored for students in the lower grades.

D. Feedback

The present study, with special analyses made for each of the target communities, could prove to be of great value in these communities for teachers, school administrators, counselors, and placement personnel. In every community surveyed those who collaborated with the research staff or who learned of the project expressed strong desire for feedback. This was not only a wish to "see how we stack up," or, in a few cases, to calm anxieties, but an honest request to be informed of reality. Many of those who have given information for this project want to take action to remedy needful situations in their home communities using project data as points of departure.

RECOMMENDATION

The project staff supports feedback to local communities, and suggests the creation of a series of in-service seminars and institutes in local communities so that each community may assess how its students, graduates, dropouts, parents, minority leaders, etc. evaluate its vocational/technical programs. This should be tied in with the local and state labor market orientation of teachers, counselors, and placement personnel.

E. Occupational Supply/Demand Data and Models

The relative inadequacy and fragmented nature of available data make occupational supply/demand assessment and prediction difficult if not impossible in most communities. In the course of this study, attempts have been made to rectify this lamentable situation. Data have been accumulated and beginnings have been made in the possible creation of models of supply/demand prediction.

RECOMMENDATION

The work already begun in data accumulation and preparation for the construction of supply/demand models should continue as an individually funded effort which can provide the target communities and other similar communities with the kind of data urgently needed to make vocational/technical education serve their needs.

F. Junior and Community Colleges

Today, junior and community colleges have become major sources of post-secondary vocational/technical education. In some areas, the colleges have moved into training that formerly was handled in vocational programs at the secondary level and in post-secondary trade schools in the private sector. The views, aspirations, and problems of minority students in post-seconday educational programs are important and will be even more important in the future. The evaluation of minority contribution and participation in vocational/technical education in junior and community colleges is needed.

RECOMMENDATIONS

A study similar to the present study should be made of minority youth in post-secondary vocational/technical education.

The relationship of post-secondary vocational/technical education to the needs of the labor market should be specially evaluated.

G. Green Carders

In South Texas and along the Mexico-United States border, the use of Mexican national green carders has had a profound effect upon the entire structure of the labor market. As brought out in this report, there are problems encountered by graduates of vocational/technical programs as they compete for jobs with these Mexican nationals.

RECOMMENDATION

There should be a special study dedicated to the relationship of vocational education programs and their students to the green card problem in South Texas and other border areas.

H. Development of Instruments

During the course of this survey in local school districts, many counselors and teachers expressed great interest in Form A/B (in-school VE and Non-VE students). They felt that such an instrument, or a similar one modified for self-administration, would be of decided assistance to them in individual counseling and evaluation of students. The information derived

from such an instrument could not only help counselors but could also help administrators in conducting district-wide evaluations.

RECOMMENDATIONS

A completely self-administered instrument, based upon Form A/B, should be developed for easy use by local school district personnel (i.e., that could be manually or machine processed). Such an instrument would require pre-testing and norming before it could be used effectively.

As a corollary suggestion, a package could be developed containing not only Form A/B but modified versions of all instruments used in this project for self-study and self-evaluation by local communities.